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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,787	01/31/2002	Nikos Pagratis	NEX87/PCT-US	6400

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EXAMINER	
FORMAN, BETTY J	
ART UNIT	**PAPER NUMBER**
1634	

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/030,787	PAGRATIS ET AL.	
	Examiner	Art Unit	
	BJ Forman	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 2-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 2-7 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FINAL ACTION

Status of the Claims

1. This action is in response to papers filed 20 September 2004 in which the previous rejections were traversed and an unsigned Declaration was submitted. On page 11 of the response Applicant states that a Terminal Disclaimer is submitted with the response. However, no Terminal Disclaimer has been received by the office.

The previous rejections in the Office Action dated 25 May 2004 are maintained as detailed below. The previous rejections under 35 U.S.C. 112, first paragraph, Scope of Enablement are withdrawn in view of Applicant's comments on pages 5-8 of the response. Applicant's arguments have been thoroughly reviewed and are discussed below.

Claims 2-7 are under prosecution.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

First paragraph of 35 U.S.C. 112: Written Description

3. Claims 2-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims are drawn to a complex of TGFb2 nucleic acid ligand and non-

immunogenic, high molecular weight compound. The specification does not provide and adequate written description of the claimed invention.

The methodology for determining adequacy of Written Description to convey that applicant was in possession of the claimed invention includes determining whether the application describes an actual reduction to practice, determining whether the invention is complete as evidenced by drawings or determining whether the invention has been set forth in terms of distinguishing identifying characteristics as evidenced by other descriptions of the invention that are sufficiently detailed to show that applicant was in possession of the claimed invention.

Reduction to practice

The claims are drawn to a complex of TGFb2 nucleic acid ligand and non-immunogenic, high molecular weight compound. The specification does not describe an actual reduction to practice of the broadly claimed invention. The specification teaches SEQ ID NO: 1-216 covalently linked to non-immunogenic compounds e.g. PEG, cholesterol, phospholipid, glycerol lipids (beginning at the bottom of page 12 through page 13) and the specification exemplifies a single ligand (NX22323) covalently linked to PEG (Example 5). However, the claims are drawn to an enormous genus of complexes which are not exemplified.

Completed by drawings

The specification does not teach that the invention is complete as evidenced by drawings. The drawings of the specification illustrate some of the nucleic acid ligands taught in the specification e.g. SEQ ID NO: 72, 86, 87, 93, 115, 131, 144, 216: Fig. 7-10) and the tables list SEQ ID NO: 1-216. However, neither the drawings or tables illustrate the broadly claimed nucleic acid ligand complexes.

Description of identifying characteristics

The specification has not been set forth in terms of distinguishing identifying characteristics as evidenced by other descriptions of the invention. The specification teaches methods for isolating target-specific nucleic acid ligands (Examples 2-3) and the specification teaches selection of target-specific ligands until ligands of relatively high affinity for the target are obtained (page 11).

However the specification does not a describe identifying characteristics of the claimed complexes which show that applicant was in possession of the claimed complexes. Therefore, the specification does not provide a written description of the claimed invention in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The courts have stated that the specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonable conclude the inventor had possession of the claimed invention see *In re Vas-Cath*, Inc. 935F2d. 1555, 1563, 19 USPQ2d 1111,1116

Response to Arguments

4. Applicant asserts that because the technology is mature where level of skill is high, the Written Description Guidelines provide that a written description should not be raised if the specification teaches a method of making the invention and function of the invention.

The argument has been considered but is not found persuasive because while the specification teaches a number of ligands of TGFβ2, the claims are drawn to an enormous genus of complexes not described or contemplated. The claims are drawn to complexes "comprised of" nucleic acid ligands and non-immunogenic, high molecular weight compound OR lipophillic compound. The open claim language "comprises of" encompasses any additional elements (e.g. sequences, peptides,) as discussed above.

Applicant traverses the examiner's suggestion that the claimed compound encompasses a test tube or slide because the compound is clearly defined by the specification. While the

specification teaches the compound is between 100-1,000,000 Da, the defined range encompasses an enormous variety of compounds not described or contemplated by the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 2-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Gold et al (U.S. Patent No. 6,124,449, filed 23 March 1998)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The claims are drawn to a complex comprising nucleic acid ligands to TGFβ2 and a non-immunogenic high molecular weight compound. The specification describes complexes comprising nucleic acid ligands (SEQ ID NO: 1-216) and PEG.

Regarding Claim 2-7, Gold discloses nucleic acid ligands of TGFβ2 and a non-immunogenic high molecular weight compound e.g. PEG (Column 10, lines 10-44).

Comments

7. Applicant states that a Declaration is submitted to overcome the above rejection. A Declaration has been received, however it is unsigned. Therefore, the rejection is maintained.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 2-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-14 of U.S. Patent No. 6,713,616. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a complex comprising a nucleic acid ligand of TGFβ2 and a non-immunogenic high molecular weight compound. The claims only differ in that the patent claims describe the ligands as SEQ ID NO: 194-215. Though the conflicting claims are not identical, they are not patentably distinct from each other because the ligands to TGFβ2 to which both sets of claims are drawn have the same nucleotide sequences and the same

complexing PEG. The claims, if allowed, would improperly extend the "right to exclude" already granted in the patent. The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Comments

10. Applicant states that a Terminal Disclaimer has been submitted to overcome the above rejection. However, a Terminal Disclaimer has not been received by the office. The rejection is maintained.

11. Claims 2-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim1-5 of U.S. Patent No. 6,346,611. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a complex comprising a nucleic acid ligand of TGFβ2 and a non-immunogenic high molecular weight compound. The claims only differ in that the patent claims describe the ligands as SEQ ID NO: 21-121 and 128-193. Though the conflicting claims are not identical, they are not patentably distinct from each other because the ligands to TGFβ2 to which both sets of claims are drawn have the same nucleotide sequences and the same complexing PEG. The claims, if allowed, would improperly extend the "right to exclude" already granted in the patent. The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Comments

12. Applicant states that a Terminal Disclaimer has been submitted to overcome the above rejection. However, a Terminal Disclaimer has not been received by the office. The rejection is maintained.

Comments

13. The previous rejection of Claims 2-7 under the judicially created doctrine of obviousness-type double patenting over claim 1 of U.S. Patent No. 6,124,449 is withdrawn in view of Applicant's comments regarding the instantly claimed nucleic acid ligand of TGFβ2 vs the patent TGFβ1 (first paragraph of page 12).

14. Claims 2-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 5,731,424 in view of Gold et al (U.S. Patent No. 6,124,449). Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a nucleic acid ligand of TGFβ. The claims only differ in that the instant claims are further drawn to the ligands complexed with non-immunogenic high molecular weight compound. Though the conflicting claims are not identical, they are not patentably distinct from each other because the ligands to TGFβ to which both sets of claims are drawn are the same and because the Gold et al teaches the preferred form of nucleic acids ligands is complexed to a non-immunogenic high molecular weight compound (Column 10, lines 25-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the patent ligands by complexing with a non-immunogenic high molecular weight compound based on Gold's preferred form nucleic acid ligands (Column 10, lines 25-44).

Comments

15 Applicant states that a Declaration is submitted to overcome the Gold et al reference cited above. A Declaration has been received, however it is unsigned. Therefore, the rejection is maintained.

16. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

17. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741. The examiner can normally be reached on 6:00 TO 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (571) 272-0745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

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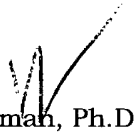

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Art Unit: 1634
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